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[For information on the topography, climate, agriculture and commercial crops, irrigation, stock raising, natural resources, production and supply, waterways, railways, and roads of the valleys of the Tigris and Euphrates between the plateau of Asia Minor and the Persian Gulf, discussed as one geographical unit, rather than by political boundary, see, M1 Middle East, cat. 116, 21: Fisher, pp. 340-370.]

[For information on the topography, climate, agriculture, mineral wealth, railways, settlement pattern, productive capacity of the economy, and trade of the Levant coastland, see M1 Middle East, cat. 116, 21: Fisher, pp. 371-414.]

[For information on the topography, occupations and relative productivity of the desert plateau, and of the Arabian Peninsula as a whole, see M1 Middle East, cat. 116, 21:Fisher, pp. 427-449.]

6: Government of Syria-1G-4 (no date) 1952 MD1 Syria MD1

REPORT ON JAZIRAH

101 Geographically, Jazirah, i.e., "the Island", is that strip of territory lying between the rivers Dijla and Euphrates, but for the purpose of this report, the term Jazirah is understood in its administrative meaning as a Mohafaza of Syria, and will be studied as such.

AREA OF JAZIRAH AND ITS CULTIVABLE LANDS

The "Statistical Abstract of Syria" for 1950 gives the total area of Jazirah as 2,217,000 hectares divided between the Mohafaza center, i.e., Hassakeh, Qamishli, and Dijla, in the following proportion:

Mohafaza Center	1,525,000 hectares
Qada of Qamishli	392,000 hectares
Qada of Dijla	300,000 hectares

311 Of this total area, according to the same source, 444,266 hectares were cultivated in 1948-49, and 1,701,284 hectares were cultivable but uncultivated, while the uncultivable lands were only 71,450 hectares.

This terminology of cultivable and uncultivable is greatly misleading. If by cultivable is meant the lands which are not rocky or mountainous or forested, the terminology is right though it loses its economic meaning. But if by it is meant lands which can be planted and rendered productive to show some profit, then other factors have to be considered, and the productive "cultivable" area of Jazirah is greatly reduced.

132 The first of these factors is the amount of rainfall. It is really astonishing that the Syrian Government has not deemed it necessary to establish agricultural stations in different regions of Jazirah to record at least the amount of rainfall in the different localities. The only such station is at Hassakeh which is not primarily a wheat growing district and the mean annual rainfall over a period of nine years is less than 300 mm. This average is less than the minimum required for successful rain-fed cultivation.

I. The Mohafaza Center

311 Therefore about 80% of the 1,525,000 hectares mentioned as
312 cultivable in the Mohafaza Center are in fact uncultivable unless

irrigated, and the Jagjag and the Khabur could never irrigate such an area. Irrigation is the second factor involved in determining whether the land is cultivable or not.

II. Qada of Dijla

Turning to the Qada of Dijla, we find that the entire region has sufficient rainfall, two rivers and many springs in the villages. In fact, the abundance of rainfall in the northeastern part of the Qada known as Jazirat ibn Amr, makes the growing of summer crops hazardous because the hot, dry period is too short.

The lower part of the Qada, from Tal Koshak to Dāmir Kapu, is similar to the Qada of Qamishli. The land is flat and precipitation, though relatively abundant, does not compare with the more mountainous regions of Dijla.

III. Qada of Qamishli

The Qada of Qamishli with the lower part of Dijla, extends from Tal Koshak on the Iraki border, comprising the cities of Qamishli, Amuda, Derbassiya, to Ras el Ain on the Khabur which belongs administratively to Hassakeh. This region, some 200 kms. in length along the railway line and the Turkish border, is the best developed and most productive of the Jazirah.

In point of cultivability, it is divided into two parts:

1. A region bounded by the railway and a line running about forty kms. south and parallel to it, from the river Rad to Tal Brak to Tal Tamr on the Khabur.
2. The region south of this fictitious line.

This division is based on the amount of rainfall and the experience of farmers during the last twelve years. It is certain that the further one goes from the Turkish mountains, the less is the rainfall. That is why Tal Brak, about 40 kms. south of Qamishli, is considered the last profitable area for rain-fed farming. In the last few years when tractor cultivation expanded greatly and lands became scarce, new farmers cultivated the lands south of the parallel line down to Hassakeh and to a point about 40 kms. north of Rakka, and learned at their own expense that it does not pay unless the crop is barley and is carried on as a sideline to a principal enterprise in the northern regions.

A vast area lies south of the Rad to the Iraki border toward the Sinjar Mountains. Farmers have been prevented from cultivating

it because of bloody disputes between the Shammar and Tay tribes. The land is poorer than in the north and the rainfall is much scarcer. Farmers who managed to plant barley on the fringes of the disputed land in the bad year of 1951 lost heavily. It is improbable that an average year would give much hope of profit.

Ras el Ain, though on the railway line, has less rainfall than Kamishli, Amuda, or Dirbassiya because the mountains recede north into Turkey. Dry farming is profitable less than 20 kms. south of Ras el Ain.

IV. The Khabur Valley

The Khabur river, though rising in Turkey, is fed by springs in Ras el Ain and flows southward for about 150 kms. within the Jazirah before it enters the Mohafaza of the Euphrates below Markada.

For about 20-30 kms. below Ras el Ain, the land is used for cereals, mainly barley, with varying degrees of success. But south of this area and down to Hassakeh, dry cultivation becomes risky. South of Hassakeh and to the east and west, dry cultivation becomes entirely out of the question because rainfall, already insufficient at Hassakeh, falls off sharply.

The inadequate rainfall is offset to a certain extent by the possibility of irrigation from the Khabur. Traces of old dams are apparent in several places, and canals which carried the waters from the dams are visible. History and legend leave no doubt that the valley was much more extensively exploited in former times than it is now.

Recently, when the price of rice rose during the War, farmers from the cities of Jazirah in search of irrigated land, began renting lands along the Khabur and installing motors and pumps. The necessary outlay of capital for any project of adequate size was substantial, not less thanLS 150,000, and the price of rice fell after 1946, so that perhaps not more than fifty irrigation projects existed up to 1949. It remained for the cotton boom of 1951 to boost this number to around 200 pumps.

The average size of pumps is 8" and the area irrigated by a pump of this size is around 500 dunums (125 acres). On some projects, where land is available, this area for summer crops is supplemented by an area twice this size in wheat and barley. But lands on both sides of the river rise steeply and rarely can an owner of an irrigation project find enough lands to use the pumps

has started the construction of a road which is not yet finished, but which permits trucks to reach Deirik in all seasons. Farmers flowed into the region following the opening of the road and began populating it. The present Minister of National Economy, Munir Diab, and Mr. Amin Nazif, formerly Secretary General of the Ministry of agriculture, own lands in the region.

c. Volume of Seeds and Crops

The main dry farming crop in Jazirah is wheat with "black" barley a poor second. It is estimated that about 50-60,000 tons of wheat are planted every year and some five thousand tons of barley. The average yield of wheat is 6-7 times per unit planted which gives a yearly crop of some 350-400,000 tons, of this quantity, 85-100,000 tons are needed for local consumption and for seed. This leaves about 250-300,000 tons available for export in an average year. Calculating this quantity at the price of LS 170 in the field free of all expenses, it means a revenue of LS 51 million per year to Jazirah with seeds and provisions already accounted for or about LS 250 per capita.

d. Difficulties in the Way of Agricultural Development

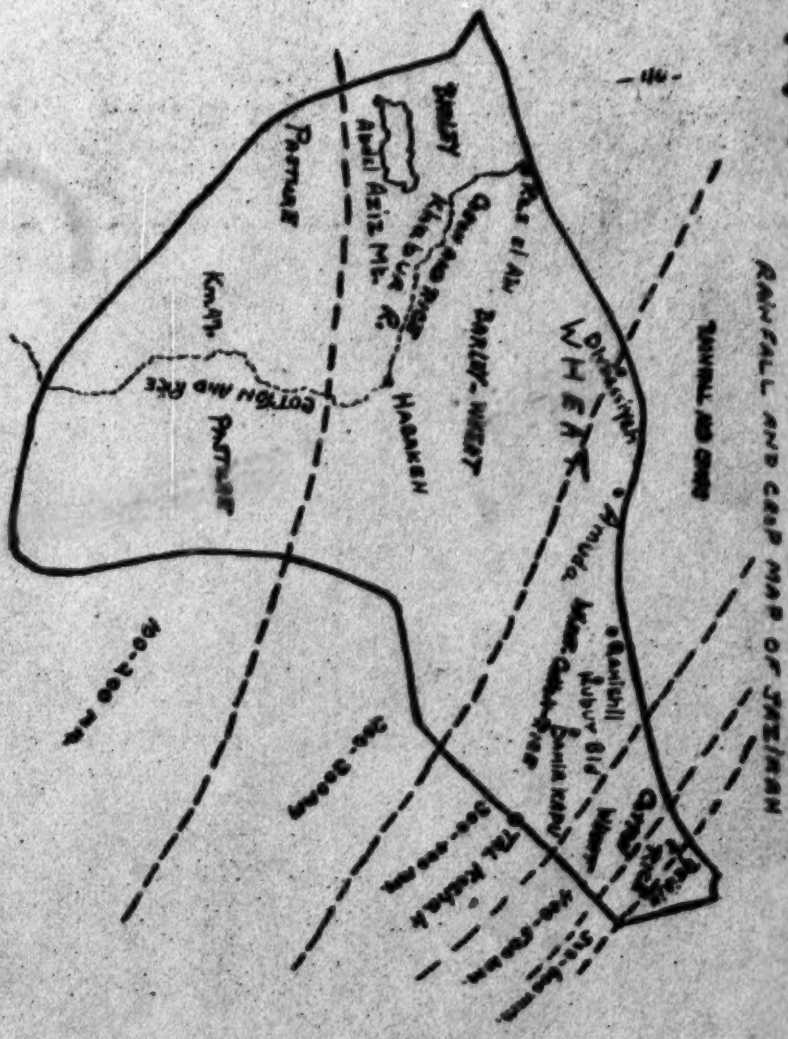
Agriculture in Jazirah suffers from many obstacles and hindrances which the Government can remedy with some careful thought and planning. The difficulties connected with land ownership and tenure and with credit and transport will be discussed separately, but other obstacles will be mentioned here below:

1. There is no agricultural station in the important wheat growing centers of Jazirah to record the amount of rainfall and the mean temperatures to guide the farmers.

2. The Jazirah is subject in most years to a heat wave during the month of May which destroys 25-35% of the crop. The only remedy is to introduce strains of wheat which mature before the period of the heat wave. Although the problem and the remedy are known to the Government, no effort has yet been made either to import new

6: Govemment of Syria--46 G-4 (no date)1952 MD1 Syria MD1

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7:Lewis S-5 (ca. 1940-45) 1948 MD1 Syria MD1

IS ONE WHERE DESERT MERGES INTO THE SOWN. THE REGION

regimen is Mediterranean in type, practically all the precipitation falling in
132 winter, the summer being characterized by drought and great heat. In the east the rainfall is sporadic and unreliable and in most years is less in total quantity than in the west. Selemiya has a mean annual rainfall of 344 millimeters (13.5 inches). On the west-facing slopes of Jebel Bil'as rainfall is relatively heavy, though highly variable, and it permits tree growth. The
311 present eastern limit of close agricultural settlement and of permanent unirrigated cultivation is near the 200-millimeter isohyet;[2] it was approximately the same in Romano-Byzantine times. Any further extension of agriculture to the east would mean great risk of crop failure and of increased soil erosion by wind and water.

134 In the cultivated west the soil is heavy and clayey, but farther to the east it is light and friable, with a high sand content and practically no humus. In Jebel Bil'as the soil is intermediate between these two types, liable to erosion by wind in summer and water in winter.

137 Over the greater part of the region the two main elements in the natural
132 vegetation are low xerophilous scrub[2] and ephemeral grasses which appear
[233] in early spring and wither away in summer. The roots and rootlets of both the permanent scrub and the annual vegetation help hold the soil in place. In Jebel Bil'as these types of vegetation are well developed, and the hills are favorite spring pasture grounds for the sheep of peasants and Bedouins. Isolated trees grow in the Palmyrene ranges far to the east throughout the area within the 200-millimeter isohyet, and even just to the east of it, in country believed to have a mean annual rainfall of less than 200 millimeters (7.9 inches). On the northwestern slopes of Jebel Bil'as tree growth is more abundant. Nothing demonstrates better the positive rainfall anomaly of the hills as compared with the arid plains to the north and south.

137 At the present time the landscape of Jebel Bil'as is at the best parklike, the trees being scattered, except in the valleys, where clumps of three or four grow together. Few trees are taller than 20 feet. The *Pistacia* genus is represented by *P. terebinthus* (probably *P. palaestina*) and *P. vera* (the pistachio tree). The wood of these two trees, hard and slow-burning, is much valued as a fuel. Scrub oak also occurs, and in wadi bottoms thick-leaved evergreens. Shrubs and herbaceous plants are scattered everywhere.

Irrigation

241 The long summer drought makes irrigation necessary for most crops

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113 [2] A full account is given by M. Zohary: Geobotanical Analysis of the Syrian Desert, *Palestine Journ. of Botany*, Jerusalem Ser., Vol. 2, 1940, pp. 46-96.

11: Hourani 8-4 (no date) 1948 MD1 Syria M01

Farther east there lies another belt of highlands. In the far north it takes the form first of the Kurd Dagh hills, then of a plateau and a series of low ranges, south of which lies the range of Anti-Lebanon, facing Lebanon across the Biqa', and rising some 9,000 ft. above sea-level. South of Anti-Lebanon is Mount Hermon with its many valleys and its three peaks, the highest of which is over 9,000 ft. high. From Hermon the land drops into the Hauran plateau; south of it is the tableland of Transjordan, which itself ends in the steppe country of the northern Hejaz.

The northern plateau slopes eastwards until it reaches the valley of the Euphrates flowing south-east. The eastward slopes are in part cultivable land, but in part semi-desert and steppe, known sometimes as the 'Little Desert' to distinguish it from the Syrian Desert to the south of it. Around and across the Euphrates is a district known as the Jazirah, which is geographically part of Iraq but of which a portion lies within the political frontiers of the Levant States. It is a district of stony hills and plains, but fertile in the river valleys, those of the Euphrates itself and of its tributaries, the Balikh and the Khabur.

East of the Anti-Lebanon the country is somewhat different. There is no plateau sloping gently to a river valley, but the eastern flanks of the mountains lead down to a barren steppe, formed of stone and gravel, with sand-dunes and coarse vegetation: the Syrian Desert. In places the Desert comes up almost to the foot of the inner range; but in others it is held back by areas of cultivable land. One such is the Ghutah, the fertile land around Damascus, well wooded and well watered by its streams. To the south of it, but separated from it by a plain of lava, lies another cultivable region, the Hauran, a large basalt plateau open to rain-clouds coming from the Mediterranean through the Esdraelon Gap. In the east this plain rises into the hilly but fertile district of Jebel Druze, of which the peaks are 6,000 ft. above sea-level. South of the Jebel Druze, the highlands of Transjordan slope eastwards and die away in isolated hills.

While the general climatic régime is similar throughout, there is great variety of temperature and rainfall in consequence of the sharp differences of relief and position. In all parts the rainy season is from October or November to April or May; but the amount of rainfall varies greatly from one

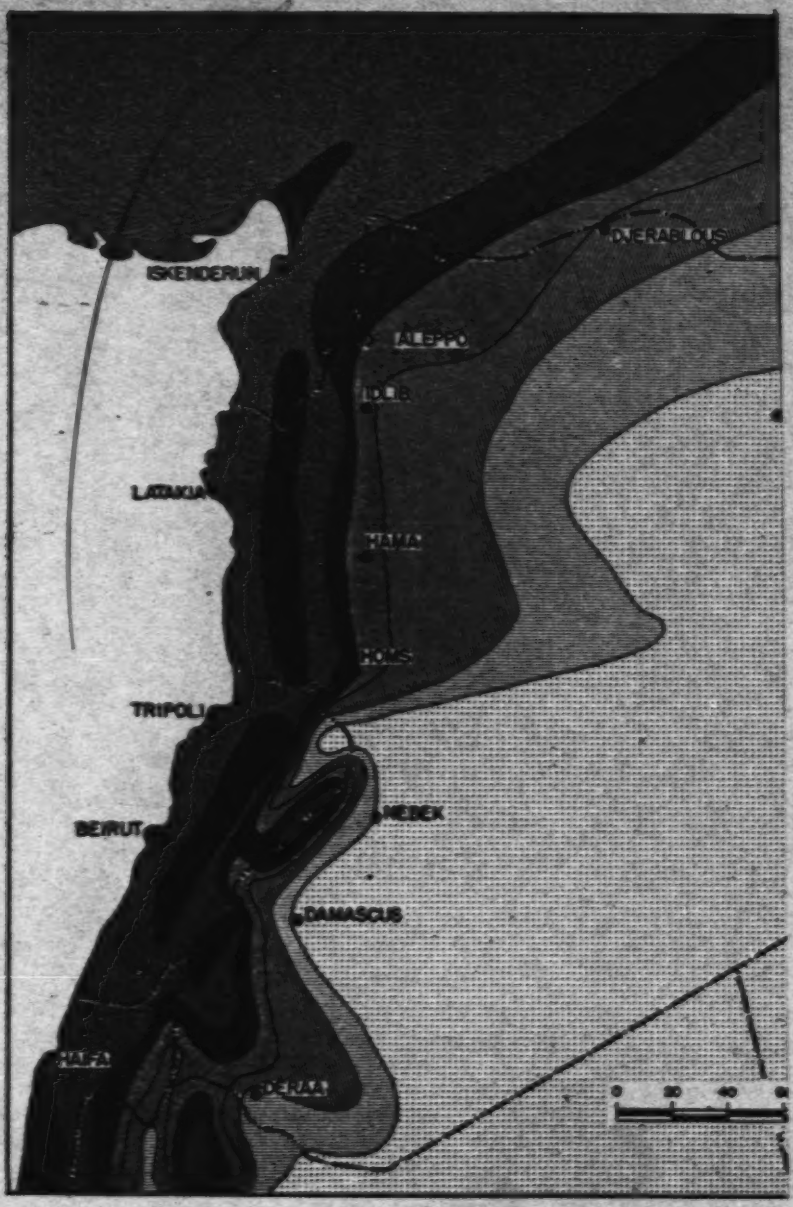
132 region to another. On some mountain heights it is over 40 in., while in the desert areas it sinks almost to nothing. The temperature also varies greatly, in general increasing from west to east and to a lesser extent from north to 132 south. The differences of rainfall and temperature, together 311 with such other factors as the presence or absence of rivers 241 and springs, give rise to great differences in fertility and vegetation. The coastal regions have a Mediterranean climate, and are often well watered both by rainfall and by rivers; they are suitable for cereals, tobacco and many kinds of fruit. The seaward slopes of the maritime ranges have a more temperate climate, and terraces of cultivable soil on which olive trees and vines can grow; but the eastern slopes are more barren. The central depression has a sub-tropical climate. Parts of it are well watered by rivers and are fertile. In the Jordan Valley, fruits can be cultivated, and cereals in the more northern parts of the inner depression. Much of the inner range is dry and barren; but on the plateaux of the north and of Transjordan there is sufficient rainfall to make possible the cultivation of cereals. This is true also of the Hauran and Jebel Druze. The Ghutah is suitable with irrigation for the growing of fruits of many kinds. East of the inner range the rainfall becomes scantier, the heat more intense, and the land less fertile; until finally it becomes too arid to be suitable for anything but pasturage. But across the Euphrates conditions change once more, and it is possible to grow cereals in the river valleys of the Jazirah.

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131 The nature of Syrian history has been deeply affected by the structure and position of the land. It is largely a history of economic, political and other movements affecting the whole area of which Syria forms a part. To those movements Syria has served at times as a starting-point, at others as a terminus or a bridge.

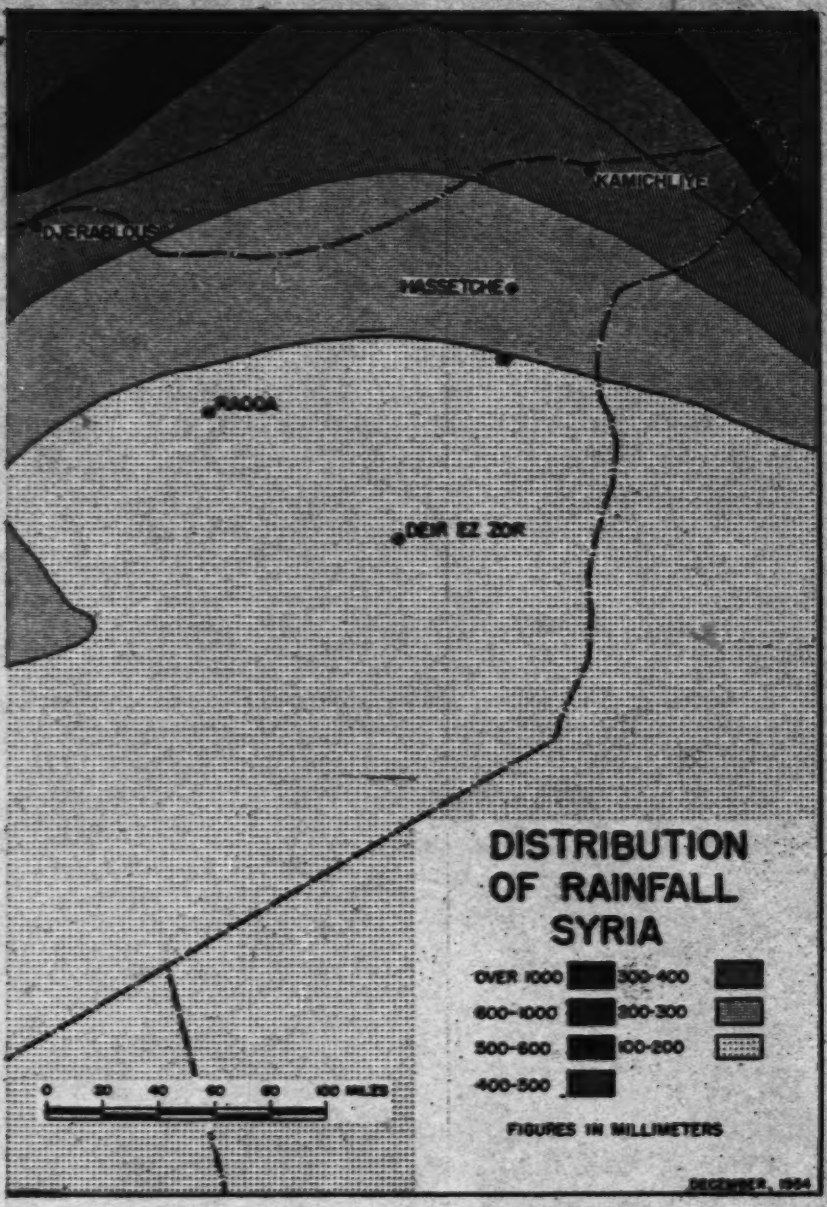
439 The first of the movements has been that of world trade. Syria has almost always been an important link in the trade-routes which connect the Mediterranean world with India and the Far East; and its own products, oil, grain, textiles and metal work, have at times found a market in the Western world. Another and more specialized trade has been that with

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[FOLLOWING P. 6 (A)]

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[FOLLOWING P. 6 (B)]

احوال البلاد الطبيعية

الحرارة والامطار في سبعة مراكز زراعية للاعوام ١٩٤٧ — ١٩٥٣

TEMPERATURE AND RAINFALL IN SEVEN AGRICULTURE STATIONS, 1947 — 1953

132

دمشق DAMASCUS

خط العرض شمالاً ٣٣°٣٠'؛ خط الطول شرقاً ٣٦°١٧'؛ الارتفاع عن سطح البحر ٧٠٠ متر

Latitude 33°31' N., Longitude 36°17' E Altitude 700 m. above sea - level

Table No. 5

جدول رقم ٥

Years & Months	الحرارة (بالدرجات المئوية) Temperature (°C)				الامطار Rainfall				السنوات والشهور
	المعدل النظامي Normal average range	المعدل الوسطي Actual average range	متوسط الحرارة العظمى average Maxim.	متوسط الحرارة الصغرى average Minim.	كمية الامطار بالمتر Amount of rainfall (mm)		عدد الايام الممطرة Days of Rainfall		
					النظامي Normal	الفعلي Actual	النظامي Normal	الفعلي Actual	
	23-23				33-33		47-53		
1947	17.21	17.4	27.4	7.4	330	147	47	46	١٩٤٧
1948	17.21	13.4	21.0	5.9	330	303	47	50	١٩٤٨
1949	17.21	14.4	22.3	6.5	330	257	47	48	١٩٤٩
1950	17.21	17.4	28.7	11.1	330	365	47	56	١٩٥٠
1951	17.21	17.4	26.1	10.7	330	228	47	38	١٩٥١
1952	17.21	17.1	23.9	10.4	330	180	47	38	١٩٥٢
1953	17.21	16.2	23.5	8.9	330	401	47	54	١٩٥٣
1953 - January	7.56	7.6	12.4	2.8	50	135.7	10	9	١٩٥٢ — كانون الثاني
February	8.91	8.4	14.7	4.2	45	93.0	8	10	شباط
March	11.97	8.2	13.5	3.0	37	84.8	8	17	آذار
April	16.30	15.7	23.0	8.5	15	13.9	5	3	نيسان
May	20.80	19.0	27.4	10.6	9	—	2	—	أيار
June	23.55	22.1	31.1	13.2	—	—	—	—	حزيران
July	25.70	25.7	34.3	17.2	—	—	—	—	تموز
August	25.27	25.2	34.3	16.2	—	—	—	—	آب
September	23.26	24.5	34.6	14.4	—	—	—	—	أيلول
October	19.30	20.2	27.5	13.0	8	—	1	—	تشرين اول
November	13.78	10.4	17.1	3.8	30	28.5	4	4	تشرين الثاني
December	9.63	5.8	11.9	— 0.2	46	48.0	9	11	كانون اول

PHYSICAL FEATURES

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الحرارة والامطار في سبعة مراكز زراعية للاعوام ١٩٤٧ — ١٩٥٢

TEMPERATURE AND RAINFALL IN SEVEN AGRICULTURE STATIONS, 1947 — 1952

حمص HOMS

خط العرض شمالاً ٣٤°٤٣ ؛ خط الطول شرقاً ٣٦°١٢ ؛ الارتفاع عن سطح البحر ٥٠٠ متر

Latitude 34°43' N., Longitude 36°42' E, Altitude 500 m above sea-level

Table No. 5 (Contd.)

جدول رقم ٥ (تابع)

Years & Months	الحرارة (بالدرجات المئوية) Temperature (°C)				الامطار Rainfall				السنوات والشهور
	المعدل النظامي Normal average range	المعدل الوسطي Actual average range	متوسط الحرارة العظمى average Maxim.	متوسط الحرارة الصغرى average Minim.	كمية الامطار بالملمتر Amount of rainfall (mm) النظامية Normal	كمية الامطار بالملمتر Amount of rainfall (mm) الفعلية Actual	عدد الايام الممطرة Days of Rainfall النظامي Normal	عدد الايام الممطرة Days of Rainfall الفعلي Actual	
	33-53				28-53		47-53		
1947	15.58	17.1	27.6	8.0	612	583	56	48	١٩٤٧
1948	15.58	15.1	21.7	8.6	612	673	58	71	١٩٤٨
1949	15.58	14.8	21.6	8.1	612	576	58	45	١٩٤٩
1950	15.56	15.8	22.5	9.2	612	634	58	59	١٩٥٠
1951	15.58	16.3	22.8	9.7	612	586	58	48	١٩٥١
1952	15.58	16.4	23.1	9.8	612	499	58	66	١٩٥٢
1953	15.58	15.1	21.7	8.5	612	747	58	71	١٩٥٣
1952 - January	5.82	7.1	13.0	2.2	152	128.0	10	11	١٩٥٢ — كانون الثاني
February	7.20	8.2	13.5	2.9	115	136.5	10	11	شباط
March	9.84	7.0	12.5	1.6	79	189.0	10	20	آذار
April	13.96	14.2	21.5	7.0	49	64.5	6	8	نيسان
May	18.70	18.3	28.0	10.6	16	—	2	—	ايار
June	22.28	22.4	30.0	14.8	1	—	—	—	حزيران
July	24.01	25.6	32.8	15.4	—	—	—	—	تموز
August	24.70	25.4	31.7	19.1	—	—	—	—	آب
September	22.63	21.8	29.5	13.9	3	4.3	1	1	ايلول
October	18.00	18.5	27.2	9.9	27	—	2	—	تشرين اول
November	12.51	10.4	16.6	4.2	68	84.6	6	10	تشرين الثاني
Decembe.	7.17	2.2	7.5	—3.0	107	139.7	11	12	كانون اول

أحوال الطقس الطبيعية

الحرارة والامطار في سبعة مراكز زراعية للاعوام ١٩٤٧ — ١٩٥٣

TEMPERATURE AND RAINFALL IN SEVEN AGRICULTURE STATIONS, 1947 — 1953 132

HAMA حماة

خط العرض شمالاً ٣٥°٠٨ ؛ خط الطول شرقاً ٣٦°٤٤ ؛ الارتفاع عن سطح البحر ٣٠٠ متر

Latitude 35°08' N., Longitude 36°44' E., Altitude 300 m. above sea-level

Table No. 5 (Contd.)

جدول رقم ٥ (تابع)

Years & Months	الحرارة (بالدرجات المئوية) Temperature (°C)				الامطار Rainfall				السنوات والشهور
	المعدل النظامي Normal average range	المعدل الوسطي Actual average range	متوسط الحرارة العظمى average Maxim.	متوسط الحرارة الصغرى average Minim.	كمية الامطار بالمتر Amount of rainfall (mm)		عدد الايام الممطرة Days of Rainfall		
					النظامية Normal	الفعلية Actual	النظامي Normal	الفعلي Actual	
	13-53				13-53				
1947	18.85	20.3	29.4	11.3	371	333	...	...	١٩٤٧
1948	18.85	18.5	25.5	11.5	371	421	...	...	١٩٤٨
1949	18.85	18.2	25.8	10.7	371	304	...	...	١٩٤٩
1950	18.85	16.3	23.4	9.3	371	294	...	67	١٩٥٠
1951	18.85	17.3	24.9	9.6	371	327	...	53	١٩٥١
1952	18.85	17.1	24.8	9.5	371	319	...	62	١٩٥٢
1953	18.85	18.0	23.0	7.1	371	428	...	58	١٩٥٣
1953 - January	7.50	11.9	18.2	5.6	94	98.8	...	12	١٩٥٢ — كانون الثاني
February	9.14	13.8	19.3	8.4	70	88.0	...	11	شباط
March	12.13	11.3	17.8	4.8	43	80.7	...	16	آذار
April	16.63	12.3	20.5	4.2	27	33.2	...	4	نيسان
May	22.66	16.6	26.5	6.8	10	—	...	1	أيار
June	27.11	30.7	30.2	11.3	—	—	...	—	حزيران
July	29.38	24.6	33.5	15.7	—	—	...	—	تموز
August	28.29	24.3	32.5	15.9	—	—	...	—	آب
September	26.10	20.1	29.2	11.0	2	—	...	—	أيلول
October	20.81	15.9	26.0	5.9	16	0.0	...	—	تشرين اول
November	14.40	9.3	18.7	1.9	48	50.0	...	5	تشرين ثاني
December	9.19	6.8	5.7	—4.2	89	72.2	...	9	كانون اول

PHYSICAL FEATURES

● 132

الحرارة والامطار في سبعة مراكز زراعية للاعوام ١٩٤٧ — ١٩٥٢
TEMPERATURE AND RAINFALL IN SEVEN AGRICULTURE STATIONS, 1947 — 1953

ALEPPO حلب

خط العرض شمالاً ٣٦°١٢' ؛ خط الطول شرقاً ٣٧°١٠' ؛ الارتفاع عن سطح البحر ٣٧٥ متر

Latitude 36°12' N., Longitude 37°10' E., Altitude 375 m. above sea-level

Table No. 5 (Contd.) جدول رقم ٥ (تابع)

Years & Months	الحرارة (بالدرجات المئوية) Temperature (°C)				الامطار Rainfall				السنوات والشهور
	المعدل النظامي Normal average range	المعدل الوسطي Actual average range	متوسط الحرارة العظمى average Maxim.	متوسط الحرارة الصغرى average Minim.	كمية الامطار بالمتر Amount of rainfall (mm)		عدد الايام الممطرة Days of Rainfall		
					النظامية Normal	الفعلية Actual	النظامي Normal	الفعلي Actual	
	33-53				33-53		47-53		
1947	17.40	18.0	27.8	8.2	399	292	59	58	١٩٤٧
1948	17.40	17.2	23.1	11.3	399	411	59	75	١٩٤٨
1949	17.40	16.4	22.2	10.6	399	318	59	38	١٩٤٩
1950	17.40	16.9	22.5	11.3	399	346	59	53	١٩٥٠
1951	17.40	17.9	23.6	12.2	399	440	59	53	١٩٥١
1952	17.40	18.2	24.2	12.2	399	342	59	75	١٩٥٢
1953	17.40	17.2	23.4	10.9	399	499	59	68	١٩٥٣
1953 - January	9.40	7.6	11.0	4.2	78	93.0	13	13	١٩٥٣ — كانون الثاني
February	8.25	9.0	13.6	4.5	67	130.5	9	15	شباط
March	10.30	8.7	13.0	4.4	46	83.0	9	14	آذار
April	16.16	16.2	22.7	9.7	31	65.6	5	6	نيسان
May	20.60	21.4	28.4	14.4	11	—	3	—	ايار
June	25.40	26.2	33.4	19.1	2	—	—	—	حزيران
July	26.03	30.0	37.7	22.3	—	—	—	—	تموز
August	28.11	29.0	35.6	22.4	—	—	—	—	آب
September	25.16	24.7	33.2	16.3	5	5.0	1	1	ايلول
October	19.96	19.8	28.0	11.7	30	14.0	4	2	تشرين اول
November	13.64	10.6	16.8	4.5	43	27.3	7	5	تشرين ثاني
December	8.80	3.0	8.7	— 2.8	86	81.0	9	7	كانون اول

احوال الباد الفلاحية

الحرارة والامطار في سبعة مراكز زراعية للاعوام ١٩٤٧ — ١٩٥٣

TEMPERATURE AND RAINFALL IN SEVEN AGRICULTURE STATIONS, 1947 — 1953

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DIR'A درعا

خط العرض شمالا ٣٢°٣٦' ؛ خط الطول شرقا ٣٦°٠٦' ؛ الارتفاع عن سطح البحر ٥١٥ متر

Latitude 32°36' N., Longitude 36°06' E., Altitude 515 m. over sea-level

Table No. 5 (Contd.) جدول رقم ٥ (تابع)

Years & Months	الحرارة (بالدرجات المئوية) Temperature (°C)				الامطار Rainfall				السنوات والشهور
	المعدل النظامي Normal average range	المعدل الوسطي Actual average range	متوسط الحرارة العظمى average Maxim.	متوسط الحرارة الصغرى average Minim.	كمية الامطار بالمليمتر Amount of rainfall (mm) النظامية Normal	الفعلية Actual	عدد الايام الممطرة Days of Rainfall النظامي Normal	الفعلي Actual	
	33-53				33-53				
1947	18.49	19.3	29.4	9.3	283	166	...	...	١٩٤٧
1948	18.49	19.5	25.6	13.4	283	298	...	...	١٩٤٨
1949	18.49	16.1	23.9	8.4	283	389	...	...	١٩٤٩
1950	18.49	16.9	25.3	8.6	283	267	...	43	١٩٥٠
1951	18.49	16.9	26.2	7.5	283	348	...	41	١٩٥١
1952	18.49	16.1	23.9	8.3	283	234	...	39	١٩٥٢
1953	18.49	17.5	24.7	10.3	283	445	...	56	١٩٥٣
1953 - January	9.61	10.7	17.7	3.7	65	81.0	...	9	١٩٥٣ — كانون الثاني
February	9.70	9.7	14.0	5.4	62	77.5	...	11	شباط
March	11.58	8.0	11.7	3.4	44	130.0	...	18	آذار
April	16.88	16.0	21.9	10.2	21	35.0	...	3	نيسان
May	21.16	23.6	33.8	13.4	8	—	...	—	ايار
June	23.70	23.1	32.0	14.2	—	—	...	—	حزيران
July	25.87	27.1	34.9	19.3	—	—	...	—	تموز
August	26.66	25.6	33.6	17.7	—	—	...	—	آب
September	22.37	23.1	30.9	15.4	—	—	...	—	ايلول
October	21.16	20.8	29.8	11.9	6	—	...	—	تشرين اول
November	15.76	14.3	21.8	6.8	37	61.0	...	6	تشرين الثاني
December	10.96	8.5	15.0	1.9	40	60.0	...	9	كانون اول

PHYSICAL FEATURES

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الحرارة والامطار في سبعة مراكز زراعية للاعوام ١٩٤٧ — ١٩٥٣

TEMPERATURE AND RAINFALL IN SEVEN AGRICULTURE STATIONS, 1947 — 1953

DEIR-EZ-ZOR دير الزور

خط العرض شمالاً ٢٠ ٣٥° ؛ خط الطول شرقاً ١٠ ٤٠° ؛ الارتفاع عن سطح البحر ٢٠٠ متر

Latitude 35°20' N., Longitude 40°11' E., Latitude 200 m. above sea-level

Table No. 5 (Contd.) جدول رقم ٥ (تابع)

Years & Months	الحرارة (بالدرجات المئوية) Temperature (°C)				الامطار Rainfall				السنوات والشهور
	المعدل النظامي Normal average range	المعدل الوسطي Actual average range	متوسط الحرارة العظمى average Maxim.	متوسط الحرارة الصغرى average Minim.	كمية الامطار بالمتر Amount of rainfall (mm) النظامية Normal	الفعلية Actual	عدد الايام الممطرة Days of Rainfall النظامي Normal	الفعلي Actual	
	33-53				33-53				
1947	19.05	...	...	...	145	187	...	...	١٩٤٧
1948	19.05	...	...	...	145	...	...	...	١٩٤٨
1949	19.05	...	...	...	145	159	...	...	١٩٤٩
1950	19.05	...	...	...	145	146	...	...	١٩٥٠
1951	19.05	20.1	28.8	11.5	145	189	...	42	١٩٥١
1952	19.05	19.0	27.9	10.2	145	153	...	34	١٩٥٢
1953	19.05	18.6	25.9	11.4	145	215	...	40	١٩٥٣
1953 - January	6.58	5.1	9.8	0.5	26	16.9	...	3	١٩٥٣ — كانون الثاني
February	8.61	8.0	13.8	2.3	21	49.7	...	9	شباط
March	12.14	7.8	18.1	2.5	24	65.0	...	9	آذار
April	18.05	17.7	24.7	10.8	21	19.0	...	8	نيسان
May	22.85	21.8	30.0	13.6	7	—	...	—	أيار
June	28.20	28.5	37.0	20.0	—	—	...	—	حزيران
July	32.32	32.3	40.1	24.5	—	—	...	—	تموز
August	31.34	32.9	40.0	25.8	—	—	...	—	آب
September	27.05	29.2	39.0	19.4	—	—	...	—	أيلول
October	19.80	24.5	35.0	14.0	4	—	...	—	تشرين اول
November	13.63	11.2	18.5	4.0	16	4.8	...	3	تشرين الثاني
December	8.45	4.5	10.0	— 1.0	26	59.9	...	8	كانون اول

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أحوال البلاد الطبيعية

الحرارة والامطار في سبعة مراكز زراعية للاعوام ١٩٤٧ — ١٩٥٣

TEMPERATURE AND RAINFALL IN SEVEN AGRICULTURE STATIONS, 1947 — 1953

LATAKIA اللاذقية

خط العرض شمالاً ٣٥°٣١، خط الطول شرقاً ٣٥°٤٧؛ الارتفاع عن سطح البحر ٢٠ متر

Latitude 35°31' N., Longitude 35°47' E., Altitude 20 m. over sea-level

Table No. 5 (Concld.) جدول رقم ٥ (تتمة)

Years & Months	الحرارة (بالدرجات المئوية) Temperature (°C)				الامطار Rainfall				السنوات والشهور
	المعدل النظامي Normal average range	المعدل الوسطي Actual average range	متوسط الحرارة العظمى average Maxim.	متوسط الحرارة الصغرى average Minim.	كمية الامطار بالمتر Amount of rainfall (mm)		عدد الايام المطيرة Days of Rainfall		
					النظامية Normal	الفعلية Actual	النظامي Normal	الفعلي Actual	
	47-53				47-53		47-53		
1947	18.62	20.4	32.7	17.1	904	771	69	70	١٩٤٧
1948	18.62	18.7	21.8	15.6	904	978	69	69	١٩٤٨
1949	18.62	18.4	23.0	13.8	904	1,087	69	79	١٩٤٩
1950	18.62	18.7	23.8	13.7	904	805	69	77	١٩٥٠
1951	18.62	18.1	22.4	10.7	904	675	69	50	١٩٥١
1952	18.62	18.4	24.4	12.4	904	885	69	63	١٩٥٢
1953	18.62	17.4	22.8	12.1	904	1024	69	72	١٩٥٣
1953 - January	9.57	11.2	15.6	6.8	186	212.0	14	17	١٩٥٢ — كانون الثاني
February	11.72	12.2	16.9	7.5	175	217.0	11	12	شباط
March	13.42	10.4	15.9	5.0	94	173.5	10	14	آذار
April	16.91	15.7	20.9	10.6	60	78.5	6	5	نيسان
May	19.90	18.8	24.6	13.0	27	33.0	3	1	ايار
June	23.40	22.2	27.1	17.4	10	13.0	1	3	حزيران
July	25.92	25.7	30.6	20.9	—	—	—	—	تموز
August	26.94	27.0	31.4	22.6	—	—	—	—	آب
September	24.87	23.4	29.7	17.1	13	11.0	3	1	ايلول
October	21.66	20.4	27.4	13.4	49	32.0	5	4	تشرين اول
November	17.21	13.8	19.8	7.8	116	155.0	7	7	تشرين ثاني
December	11.80	8.2	13.8	2.6	173	161.5	11	8	كانون اول

Source : Ministry of Agriculture. المصدر : وزارة الزراعة

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
SYRIA MD1

of almost 36 square miles to the east and the south of Damascus. Since ancient times the prosperity and the beauty of the city have been influenced by the Barada River, earning for it the name of the "River of Gold."

Governed by the proximity of the Mediterranean and the desert, wide variations in climatic conditions are encountered in different parts of the country. In general, the rainfall decreases in volume toward the interior and from northwest to southeast. Except on the seaward slopes of the northwestern highlands, the annual precipitation falls in the period from November through May, and is usually concentrated within a few days of each month. The average rainfall varies from 30 inches a year in the coastal region to less than 5 inches on the fringes of the desert. In the years 1938-50, the total precipitation recorded annually at Aleppo ranged from 12 to 33 inches, and at Damascus, from 5 to 11 inches. Similarly, while the moderating effects of the Mediterranean are felt along the coast, wide gradations in temperature are common in the interior. The winter temperatures inland normally average above freezing, but frosts and light snows may be encountered during the coldest months, in January and February. The summers are hot and dry, with temperatures approaching 100° F., and often 110° F., toward the east in July and August. The daily range, which approximates 15 to 20° F. in the winter, increases to around 30° F. in the summer. In the northeastern regions and near the desert, the hot, dry, sand-laden *sirocco* blows at irregular intervals, with greatest intensity during the early summer. In 1949, the mean temperature at Damascus was about 59° F.; the mean maximum temperature, 73° F.; and the mean minimum temperature, 44° F. The corresponding temperatures at Aleppo were 63° F., 73° F. and 52° F., respectively. No comparable temperature readings for Deir ez Zor and the towns in the eastern provinces were available.

135
132
p. 137(A)

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
SYRIA MD1

The infant mortality is not known, but local observers believe that it is at least 250 per 1,000 live births. In many rural villages the mortality among children under 5 years of age probably reaches 40 to 50 per cent. Discrepancies in reporting are exaggerated by the fact that certification of birth is not required for infants dying during the first year of life. The official infant mortality rate for 1948 was 47.6 per 1,000 births for the country, but 75 per 1,000 births in the city of Damascus. Among almost 15,500 deaths registered in 1949, over 21 per cent were of infants under 1 year and about 35 per cent of children under 5 years of age.

Social Economy

Agriculture is the basis of Syria's economy. Over two thirds of the people are dependent upon the land, and, in consideration of the paucity of other natural resources, its full utilization is a problem of primary concern to the welfare of the country. Except in limited portions of the northwestern and the northeastern provinces, the rainfall is deficient and erratic, and the expansion of agriculture is contingent upon the development of irrigation and more efficient methods of production. Estimates of the amount of cultivable land range from 10 to 21 million acres—from less than one quarter to almost one half of the total land area. A similar disparity is noted between the figures quoted for the acreage now under cultivation, but all sources agree that less than one half of the potentially arable lands are planted in crops. Most observers believe that the land suitable for agriculture approximates 12 to 14 million acres, while the area under cultivation is between 5 and 6 million acres. Roughly 10 to 20 per cent of the tilled land is irrigated at present, but it has been shown that the farm acreage could be more than doubled by increased irrigation, associated with controlled settlement, in the Orontes, the Khabour and the Euphrates river valleys.

Foremost among the factors which impede the promotion and the modernization

p. 139(b)

SYRIA

(Visited 13 - 19 January 1953)

131 58. The Republic of Syria covers approximately 55,700 square miles and has an
162 estimated population of 2,900,000 (including nomads 3,200,000), Arabic speaking and
132 mainly Moslems. There is at present no problem of over-population. Much of the country is at present rain-fed dry land.

311 The total cultivable area is 12,500,000 acres of which about 1/3 is
312 under cultivation. Many irrigation projects have been started or are in contemplation. The systems of irrigation do not expose the peasantry in the same degree as in Egypt to bilharzia and the climate is invigorating for much of the year.

241 59. Agriculture and cattle breeding are the principal industries. A recent
231 government decree laid down that land not registered must be put at the disposal of the State, who will sell it at a low price in lots of 50 hectares. The land which is thus to be acquired is State Domain which at various times has been appropriated and cultivated by the big land-owning families. The areas involved are said to be 2.3 million hectares of cultivable land and 7.6 million hectares of grazing.

423 The land which is to be redistributed must be exploited within 2 years from the
185 date of purchase and must not be resold, although it may be mortgaged to the Agricultural Bank. The Bank will give financial help for the purchase and development of the land.

60. The scheme has been criticized on the ground that in order to avoid a fall in production from the large estates now being cultivated through private capital and a stop being put to the further exploitation of hitherto uncultivated land, the Government will require to make provision for the supply of capital and expert advice to new peasant owners. A scheme for the drainage of a considerable tract in the Jezirah area, known as the Ghab Swamp, is being drawn up as a result of a survey of the area by a foreign firm of engineers. This will also require large capital expenditure.

61. The financing of land redistribution schemes is outside the scope of our mission as is the furnishing of expert advice on new agricultural methods for the more successful exploitation of small estates, except in so far as agricultural extension services can be combined with health and other services appropriate to community welfare organization.

62. The possibility of the Syrian Government's applying for outside technical assistance for any of the above-mentioned purposes is a matter of high policy which we did not feel justified in discussing with the officials whom we had occasion to meet during our visit to Damascus.

647 63. Dr. Joukhadar, the Director of Labour and Social Affairs, gave the mission the
657 text of a project law (Appendix IV) that had been drafted in his department for
185 establishing rural community centres, somewhat on the lines of those that exist in Egypt.

64. The Decree contemplates that in each province a model centre be established to provide all requisite economic, health, cultural, social and administrative services this being "the only institution that can undertake all the responsibilities and guarantee the success of a programme of village improvement which does not involve

3:Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
SYRIA MD1
LEBANON ME1

twenty degrees of latitude. The desert in Syria is of rock and gravel more than of sand, and there are hills rising above 3,000 feet both north and south of Palmyra; more than a third of the total area of Syria is steppe or desert.

Rivers

The Orontes flows from the northern part of the Biqaa through the lake of Homs (which holds about 260 million cubic yards of water) to Hama and through the Ghab depression to Turkey. The Litani rises not far from the Orontes but flows at first southward and later west through a deep gorge in the Lebanon mountains into the sea between Tyre and Sidon. The Euphrates runs through Syria for about 430 miles and has, as tributaries from the north, the Balikh and the Khabur. It is on the Euphrates and its tributaries that there is the best prospect of developing hydro-electricity and irrigation.

Climate[1]

Over this diverse scene the temperatures vary in the year from below freezing to above 100°F., and on the same day it is possible to ski near the cedars of Lebanon and swim in the sea at Beirut. The rain, which in most places comes between November and February, varies from almost nothing in the desert to about 40 inches a year in the mountains. In the coastal strip the winters are not severe but there is high humidity and small diurnal variation in the summer and this makes the season seem unpleasant and prolonged. In the mountains the snow lies on the topmost peaks for most of the year and the road from Beirut to Damascus is blocked by snow at times in most winters; in the summer the days are hot but the nights are cool enough to draw up to the mountains most of the inhabitants of Beirut. The plateaux and desert have an inland climate with low humidity and higher extremes of heat and cold. Aleppo has greater extremes than Damascus but in both cities there is a distinction between the four seasons: spring from mid-March to mid-May, summer from mid-May to the beginning of October, autumn in October and early November, and winter from November to March.

The People

Official statistics showed that in 1951 the populations of Syria and of Lebanon were 3,329,137, and 1,303,941 respectively. Over half the inhabitants are engaged in agriculture, about half a million are nomads, and the rest live in towns. The

[1] See table, below, p. 501.

25: Warriner S-5 no data 1948 MI Middle East
Lebanon ME 1
Syria MD1

better cultivation, if more machinery were available, to reduce the fallow to one year out of two, instead of two out of three in the districts where this is customary; it would also be possible, by machine cultivation, to keep weeds under control. (See Chapter VIII.)

The main possibilities of development, however, depend on irrigation. At present an area of some 500,000 acres is irrigated, and even under the existing scheme much water is wasted. How much additional land could be irrigated is a subject for controversy. Mr Soubhi Mazloum, a Syrian irrigation engineer, suggests that the total area which could be irrigated, including the use of the Euphrates water, may be as large as 1,200,000 hectares (2,960,000 acres):[1] but this figure refers to the area which it is *physically* possible to irrigate, not the area which could be irrigated with any prospect of economic return.

A more exact and detailed estimate was prepared by Professor Addison, the irrigation expert, who surveyed existing schemes in 1943 and considered that the extension of these which was then economically practicable would irrigate some 68,000 hectares (168,000 acres) in addition to the area already irrigated.

The difference between these two estimates indicates how wide a range of opinion there is. A survey is now being prepared by a British irrigation firm on behalf of the Syrian Government, to provide the basis of development projects, and pending its publication it is impossible to quote any more satisfactory estimates.

The Jezira and Euphrates Provinces. In inner Syria, the Jezira area and part of the Euphrates province in the north-eastern corner of the country, there are quite large possibilities of extending cultivation both in the rain-fed zone, and by irrigation. North of a line from Tiyne to Sheikh Saleh there is sufficient rainfall to water the winter crops. In the 'Duck's Bill' and along the Turkish frontier to a depth of about 12 miles to Derbisiye, the rainfall is 50 to 100 centimetres per year (20–40 inches), and south of this there is another belt with rainfall of 25 to 50 centimetres (10–20 inches), about 50 miles wide.[2]

[1] 'Le Problème de l'Eau au Liban et en Syrie', in *L'Agriculture, Richesse Nationale*, (Beirut, 1942).

[2] This information is based on an unpublished report prepared for M.E.S.C. in 1944.